AMENDMENTS TO THE SPECIFICATION:

Page 1, amend paragraph [0002] as:

[0002] Because the refractive index (n) of gallium nitride (GaN) semiconductor as an LED material is 2.3 approximately, far different from that of air (n=1), a small critical angle of total reflection about 25° ~~is resulted~~ exists to block almost all the incident rays emitted from a light-emitting layer of LED.

Pages 1-2, amend paragraph [0003] as:

[0003] For improvement, a known method according to IEEE Transactions on Electron Devices, 47(7), 1492, 2000 was presented to coarsen a semiconductor surface, particularly an epitaxy surface to raise the scattering and refracting probability of incident light usually by way of etching. US Patent No. 5,040,044 discloses a chemical etching process for coarsening a light-emitting element to improve light emitting efficiency. Besides, there are other similitudes, such as US Patent Nos. 5,429,954 and 5,898,192. However, the mentioned processing method is applicable only to the red-light LED, not to GaN-based materials which [[is]] are especially weak in resistance against acids/alkalis, and it is relatively difficult to control a wet etching process while a dry etching process is liable to spoil the epitaxial layer and cause an increment of impedance, particularly in the case of a P-type GaN layer, to thereby affect the current distribution and degrade the light-emitting efficiency. In addition, because the deposited p-type GaN layer is extremely thin (only 0.1-0.3 μm), the light-emitting layer could be impaired occasionally by a direct coarsening to result in a smaller light-emitting area. For

promoting permeability, the transparent electrode on a GaN LED should be made as thinner as possible (about 10 nm) so that a direct coarsening job might destroy the transparent thin electrode or [[makes]] make it discrete to badly affect the current distribution and light-emitting efficiency. On the other hand, though the dry etching process is applicable to a p-type GaN layer having a sufficient thickness, the current distribution and light-emitting efficiency is nevertheless deteriorated to hence set the coarsening process in a dilemma.

Page 2, amend paragraph [0002] as:

[0006] Another object of the present invention is to change the path of light emitted from an INGaN multiple-quantum-well structural layer by availing the scattering effect of a coarsened p-type quantum-dot epitaxial layer to hence decrease the probability of total reflection and increase ~~heighten~~ the light-emitting efficiency.

Page 3, amend paragraph [0013] as:

[0013] The n-type GaN layer **1030** is a 1-2μm thick Si-impurity-doped layer made in GaN-based compound semiconductor and grown by raising temperature of the substrate to ~~10000-1200°C~~ 1000-1200°C. The test piece is then drawn out and dipped in the MOCVD system and the substrate **101** is heated to 700-900°C to form the multiple-quantum-well structural layer (InGaN) **1032** as a light-emitting layer, which is overlapped by the p-type GaAlN layer (Mg-doped) **1034**, the p-type GaN layer (Mg-doped) **1036**, and a final Mg-doped p-type quantum-dot epitaxial layer **107** which is made of an InAlN compound. The p-type quantum-dot epitaxial layer **107** is substantially a 10Å-degree

coarse-grained $Al_xGa_{(1-x-y)}In_yN$ thin film, where $0 \leqq x, y < 1$, $0 \leqq x+y < 1$. By means of the foregoing process, an LED epitaxial chip is completed.